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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,369	01/22/2001	Shino Kanamori	Q62748	8599
7590	02/10/2005		EXAMINER	
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037-3213			MISLEH, JUSTIN P	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/765,369	KANAMORI ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Justin P Misleh	2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 December 2004. L
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 - 62 is/are pending in the application.
- 4a) Of the above claim(s) 8, 10 - 40, 43 - 47, 49, 54, and 57 - 62 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 - 7, 9, 41, 42, 48, 50 - 53, 55, and 56 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 January 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Species I (figures 1 – 9B and Claims 1 – 7, 9, 41, 42, 48, 50 – 53, 55, and 56) in the reply filed on 2 December 2004 is acknowledged.

### ***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
3. The disclosure is objected to because of the following informalities: minor typographical errors.
  - o **Page 24, line 22** – “digital camera 10a” is stated when “digital camera 10” is shown in Embodiment 1.
  - o **Page 34, lines 27 and 28** – “mode of the digital camera 10s to digital camera 10s, as in Embodiment 1” is stated however, in Embodiment 1 the digital camera is 10 and in Embodiment 2 the digital camera is 10a.
  - o **Page 37, line 1** – “digital camera 10” is stated when “digital camera 10a” is shown in Embodiment 2.
  - o **Pages 56, line 32, and 57, line 10** – “digital camera 10a” is stated when “digital camera 10b” is shown in Embodiment 3.
  - o **Page 57, line 17** – “operating unit 110a” is stated when “operating unit 110b” is shown in Embodiment 3.

Appropriate correction is required.

***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:  $\theta_7$  (figure 16A) and  $\theta_9$  (figure 17A).

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

5. **Claims 4, 42, 48, 50, 52, 55, and 56** are objected to because of the following informalities: minor typographical errors.

o **Claim 4** recites therein "said displacement support;" however, no "displacement support" had been previously introduced. The Examiner believes this is a minor typographical error and will interpret the recitation as "said displacement center."

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- **Claim 42** simply recites therein “said switch” when a “switch unit” has been previously defined. The Examiner believes this a minor typographical error and will interpret the recitation as “said switch unit.”
- **Claim 48** recites therein “said input unit,” however, no “input unit” had been previous introduced. The Examiner believes this is a minor typographical error and will interpret the recitation as “an input unit.”
- **Claim 50** recites therein “said buttons,” however, no “buttons” had been previously introduced. The Examiner believes this a minor typographical error and will interpret the recitation as “said display.”
- **Claim 52** recites therein “said second display information;” however, no “second display information” had been previously introduced. The Examiner believes this a minor typographical error and will interpret the recitation as “said second display unit.”
- **Claim 55** recites therein “said switches area;” however, no “switches” had been previously introduced. The Examiner believes this a minor typographical error and will interpret the recitation as “said switches.”
- **Claim 56** recites therein “the body face;” however, no “body face” had been previously introduced. The Examiner believes this a minor typographical error and will interpret the recitation as “a body face.”

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1, 2, 5 – 7, and 9** are rejected under 35 U.S.C. 102(b) as being anticipated by Hirose et al.

**A Note to the Applicant Regarding Claim 9:**

As stated in the MPEP § 2111.02 (please see also Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 – CCPA 1951), if the preamble of the claim neither recites the limitations of the claim nor is necessary to give life, meaning, and vitality to the claim; then the preamble of the claim is not served to further define the structure of the claim. Thus, in regards to Claim 9, the Examiner does not give the preamble of the claim any patentable weight since the preamble of the claim neither recites the limitations of the claim nor is necessary to give life, meaning, and vitality to the claim.

More specifically, the preamble of Claim 9 recites, “a capturing apparatus for capturing an image including an input unit” wherein the “capturing apparatus for capturing an image” is not necessary to give life, meaning, and vitality to the details of the input unit as claimed.

8. For **Claims 1 and 9**, Hirose et al. disclose, as shown in figures 3 – 5 and 8 – 10 and as stated in columns 2 (lines 32 – 51 and 60 – 65), 3 (lines 58 – 65), and 4 (lines 4 – 56), an input unit comprising:

an instruction input unit (design display portion 14 @ “approximate central portion”) including a display part (LCD 17), a posture of said instruction input unit (design display portion 14) capable of being displaced (in a downward fashion as indicated in column 3, lines 1 – 33) by a pressure applied to a first face (design display portion 14) thereof including a display screen (LCD 17) of said display part (LCD 17);

a switch pressing unit (display surface 13 @ peripheral portions “surrounding the design display portion 14”) provided in the vicinity of an outer periphery of a face (display surface 13 other than said first face (design display portion 14) of said instruction input unit (design display portion 14), said switch pressing unit (display surface 13) being capable of being displaced in accordance with the displacement of the instruction input unit (in a downward fashion as indicated in column 3, lines 1 – 33); and

a switch part (plunger 29; projecting shaft 31; operating shaft 34; and switch body 32) arranged to work by being pressed by said switch pressing unit (display surface 13).

Hirose et al. provides a push-button input unit comprising a central display portion (14) and a peripheral portion (14) surrounding the central display portion (14), wherein pressure applied to either the central display portion (14) and/or the peripheral portion (13) will cause the downwardly projecting shaft (31) of the plunger (29) to connect with lead-out terminals within the operating shaft (34) of the switch body (32). Therefore, the switch pressing unit (13) is displaced in accordance with the instruction input unit (14).

9. As for **Claim 2**, Hirose et al. disclose wherein said instruction input unit (13) presses said switch part (plunger 29; projecting shaft 31; operating shaft 34; and switch body 32) via said switch pressing unit (display surface 13) by being displaced around a position in the vicinity of a

center of gravity thereof as a displacement center in a direction perpendicular to a face on which said switch part is provided.

The switch part (plunger 29; projecting shaft 31; operating shaft 34; and switch body 32), the instruction input unit (14) and the switch pressing unit (13) lie within a plane(s) parallel to the plane of which the display (17) resides, as shown clearly in figure 4. The displacement center corresponds to the center of gravity of the instruction input unit (13), the switch pressing unit (14), and the switch part (plunger 29; projecting shaft 31; operating shaft 34; and switch body 32) such that the displacement direction is perpendicular to the instruction input unit (13) plane, the switch pressing unit (14) plane; and the switch part (plunger 29; projecting shaft 31; operating shaft 34; and switch body 32) plane. In other words, the displacement corresponds to an up and down displacement and not a lateral displacement.

10. As for **Claim 5**, Hirose et al. disclose, as shown in figures 8 – 10 and as stated in column 4 (lines 4 – 56), wherein said display part (LCD 17) is arranged to display information related to functions assigned to switches included in said switch part in the vicinity of said switches, respectively.

The hooked-shaped display portions (15) provided in the switch pressing unit (13) and the display (17) provided in the instruction input unit (14) are operable to represent various modes (see figures 8 – 10) by displaying a plurality of functions (see “the advantages” in column 4).

11. As for **Claim 6**, Hirose et al. disclose, as shown in figures 8 – 10 and as stated in column 4 (lines 4 – 56), wherein said display part (LCD 17) is arranged to display information related to an operation state of an apparatus (e.g. keyboard) used together with said input unit.

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The hooked-shaped display portions (15) provided in the switch pressing unit (13) and the display (17) provided in the instruction input unit (14) are operable to represent various modes (see figures 8 – 10) by displaying a plurality of functions (see “the advantages” in column 4).

12. As for **Claim 7**, Hirose et al. disclose, as shown in figures 8 – 10 and as stated in columns 2 (lines 43 – 46) and 4 (lines 4 – 56), wherein said display part (LCD 17) is arranged to display one of a plurality of background colors that is determined in accordance with an operation state of an apparatus (e.g. keyboard) used together with said input unit.

The hooked-shaped display portions (15) provided in the switch pressing unit (13) and the display (17) provided in the instruction input unit (14) are operable to represent various modes (see figures 8 – 10) by displaying a plurality of functions (see “the advantages” in column 4).

13. **Claims 41 and 42** are rejected under 35 U.S.C. 102(b) as being anticipated by Ohishi et al.

14. For **Claim 41**, Ohishi et al. disclose, as shown figure 11, a capturing apparatus (1) for capturing an image, comprising:

a display part (3) arranged to have a display screen (3) inclined with respect to a plane of a body face (the plane of first housing 2) of said capturing apparatus (1); and  
a switch unit (11) including a plurality of switches (11a – 11h) arranged in surroundings of said display part (3).

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15. For **Claim 42** (please see objection above), Ohishi et al. disclose, as shown figure 11 and as stated in column 6 (lines 64 – 67), a capturing apparatus (1) for capturing an image, comprising:

a display part (3) comprising a display screen (3); and

a switch unit (11) including at least one switch (11i – 11p) arranged in surroundings (surrounding the bottom of the display part 3) of said display part (3), said switch unit (11) being inclined with respect to a plane of a body face (first housing 2) of the capturing apparatus (1).

16. As for **Claim 48** (please see objection above), Ohishi et al. disclose, as shown in figure 11, wherein an input unit (11o) is arranged on an upper-right side of a center (approximately at the location of switches 11l and 11m) of a face (first housing face 2) of said capturing apparatus (1) that faces a user when being used (first housing is the rear face of the capturing apparatus, see figure 15).

17. As for **Claim 50** (please see objection above), Ohishi et al. disclose; as stated in column 10 (lines 15 – 20), wherein said display part (3) have at least one of a function of displaying information related to functions assigned to said switches in the vicinity of said display respectively corresponding to said switches and a function of displaying information related to an operation state of said capturing apparatus (The display part 3 displays captured images in recording operation state.).

18. **Claims 52, 53, 55, and 56** are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson.

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19. For **Claim 52** (please see objection above), Anderson discloses, as shown in figures 3, 8, and 9D and as stated in column 11 (line 34) – column 12 (line 58), a capturing apparatus (810) for capturing an image, comprising:

an input unit (“Application Graphics Area”) including a first display unit (area corresponding 288 X 196) operable to display a first displayed information (Application Graphics) and a plurality of switches (Switches 910a – 910c) arranged to form at least one pair (Up/Down/Left/Right), said switches of each of said at least one pair being opposed to each other with said first display unit sandwiched therebetween (Figure 9D clearly shows how the display area is sandwiched between the switches 910a – 910d.); and

a second display unit (“Softkey Label Area” and “Applications Graphic Area” combined; 320 X 240; it is important to note that Applicant does not distinguish between the first and second display physically, only by an assigned label),

wherein said first displayed information includes information indicating functions assigned to said switches (The arrows assigned to the switches indicate up/down/left/right cycling/scrolling functions of the switches.), and a means is provided for incorporating at least a part of said first displayed information into said second display unit (The switches in the “Applications Graphics Area” is incorporated into the second display unit, which corresponds to the combined “Softkey Label Area” and “Applications Graphic Area” display area.).

20. As for **Claim 53**, the claim language requires therein wherein said input unit is arranged on an upper-right side of a center of a face of said capturing apparatus that faces a user when said capturing apparatus is used. This limitation is written broadly enough that the input unit is not required to be arranged ONLY on an upper-right side but that it can be arranged on other sides

including an upper-right side. If an input unit is arranged such that it is on all sides of a center of a face of said capturing apparatus that faces a user when said capturing apparatus is used, then the input unit satisfies the limitation.

Anderson discloses, as shown in figures 8 and 9D, the input unit (“Applications Graphics Area”) is arranged such that it is on all sides of a center of a face of said capturing apparatus that faces a user when said capturing apparatus is used.

Furthermore, Anderson discloses wherein said second display unit (“Softkey Label Area” and “Applications Graphic Area” combined; 320 X 240) is arranged to display said first display information (Application Graphics) when one of said switches arranged at an upper position of a left position with respect to said first display is operated (When the switches are operated, they are displayed in an opaque state, see column 12, lines 35 – 58.).

21. As for **Claim 55** (please see objection above), Anderson discloses, as shown in figure 9D, wherein said switches (910a – 910d) are arranged approximately at an upper position (910a), a lower position (910c), a right position (910b) and a left position (910d) with respect to said first display unit (“Applications Graphics Area”).

22. As for **Claim 56** (please see objection above), Anderson discloses, as shown in figures 8 and 9D, wherein said input unit and said second display unit are arranged on the same plane of a body face of said capturing apparatus (back of camera facing the user).

#### ***Claim Rejections - 35 USC § 103***

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. **Claims 3 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al. in view of Swayze.

25. As for **Claim 3**, while Hirose et al. disclose a switch part including a plunger (29), a projecting shaft (31), an operating shaft (34), and a switch body (32), as shown in figure 4; Hirose et al. do not disclose wherein said switch part includes switches arranged to form at least one pair, said switches of each of said at least one pair being opposed to each other with said displacement center sandwiched therebetween.

On the other hand, Swayze also disclose an input unit comprising an instruction input unit and a switch part. More specifically, Swayze teach, as shown in figure 2 and 4 and as stated in columns 5 (lines 54 – 67) and 6 (lines 1 – 9), a switch part (four-way directional interface 70) includes switches (128, 130, 132, and 134) arranged to form at least one pair (up/down 132/134 and left/right 128/130), said switches (128 – 134) of each of said at least one pair being opposed to each other with said displacement center (90) sandwiched therebetween.

As stated in Swayze at column 2 (lines 57 – 63), at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included the four-way directional switch part teaching of Swayze, in the instruction input unit disclosed by Hirose et al., for the advantage of integrating mode selection into a single control presentation that intuitively allows the user to cycle through available choices and options with a minimum of hassle.

26. As for **Claim 4** (please see objection above), while Hirose et al. disclose a switch part including a plunger (29), a projecting shaft (31), an operating shaft (34), and a switch body (32),

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as shown in figure 4; Hirose et al. do not disclose wherein said switch part includes switches arranged substantially at an upper position, a lower position, a right position and a left position with respect to said displacement center.

On the other hand, Swayze also disclose an input unit comprising an instruction input unit and a switch part. More specifically, Swayze teach, as shown in figure 2 and 4 and as stated in columns 5 (lines 54 – 67) and 6 (lines 1 – 9), a switch part (four-way directional interface 70) includes switches (128, 130, 132, and 134) arranged substantially at an upper position (132), a lower position (134), a right position (130) and a left position (128) with respect to a displacement center (90).

As stated in Swayze at column 2 (lines 57 – 63), at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included the four-way directional switch part teaching of Swayze, in the instruction input unit disclosed by Hirose et al., for the advantage of integrating mode selection into a single control presentation that intuitively allows the user to cycle through available choices and options with a minimum of hassle.

27. **Claim 51** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohishi et al. in view of Hirose et al.

28. As for **Claim 51**, while Ohishi et al. disclose an image capturing apparatus (1) including a display part (3) and various modes of operation including a recording mode and reproduction mode (see column 10, lines 15 – 29) wherein images are displayed on the display part (3); Ohishi et al. do not disclose wherein the display part (3), during various operating modes, selects a background color for display from a plurality of background colors.

On the other hand, Hirose et al. also disclose an apparatus comprising a display part. More specifically, Hirose et al. teach, as shown in figures 4, 5, and 8 – 10 and as stated in columns 2 (lines 43 – 46) and 4 (lines 4 – 56), wherein the display part (3) selects a background color for display corresponding to a particular operating mode of the apparatus.

As stated in column 1 (lines 60 – 65), at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included the selected background color display part teaching of Hirose et al. in the image capturing apparatus with display part disclosed by Ohishi et al. for the advantage of providing a distinguishable display even in all lighting conditions in all environments.

#### *Cited Prior Art*

29. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The following is a brief description of each of the cited prior art not used in the rejections above as they are labeled on attached form PTO-892:

- **Prior Art E – Prior Art K of page 1 and the Foreign References of page 2** disclose an image capturing apparatus comprising a display part and a four-way directional input unit for operating the image capturing apparatus and display part, respectively.
- **Prior Art L of page 1** discloses an image capturing apparatus comprising a display part and a multi-directional input unit for operating the image capturing apparatus and display part.
- **Prior Art M of page 1 – Prior Art A and Prior Art B of page 2** disclose an input unit comprising at least one switch and a display unit wherein the display unit responds to various

operations of the switch and the input unit, wherein the input unit, switch, and display are incorporated into a single device.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 703.305.8090 (571.272.7313 ~ March 2005). The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 5:00 PM and on alternating Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wendy R Garber can be reached on 703.305.4929. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM  
February 2, 2005

  
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